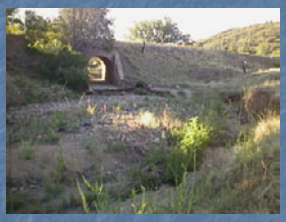
Slaughterhouse Gulch

Yavapai-Prescott Indian Tribe



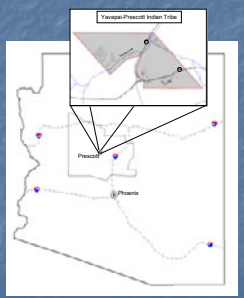
Non-point Source Work Shop
May 17-19, 2006

Outline

- Yavapai-Prescott Indian Tribe
- Environmental Accomplishments and Challenges on YPIR
- Slaughterhouse Gulch
  - Overview
  - History
  - Special considerations
  - Engineering proposal
  - Future plans

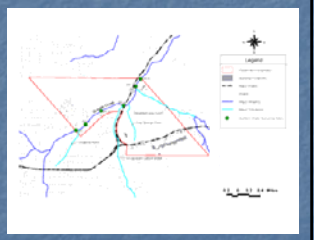
Yavapai-Prescott Indian Tribe

- Reservation established in 1935 by an Act of Congress
- 1,395 acres of land
- ~162 Tribal members
- 2 casinos, commercial and light industrial development



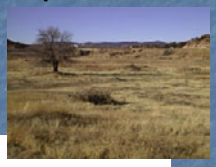
Yavapai-Prescott Indian Tribe

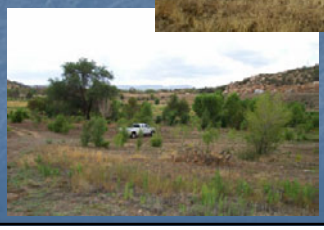
- Landscape ranges from rolling hills to valleys
- Vegetation varies from riparian to Ponderosa Pine
- Granite Creek (1.7 miles)
- 4 ephemeral tributaries:
  - Slaughterhouse Gulch
  - Government Canyon Wash
  - Goat Spring Wash
  - Unnamed Wash



Environmental Accomplishments

- Wetlands restoration
  - Completed in 2000
  - 39 acres restored
  - Over 6,000 trees planted





Environmental Accomplishments

- Erosion control
  - Gabions
  - Rock bowls

Environmental Accomplishments

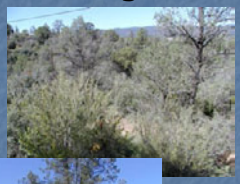
- Water quality sampling
  - Approved QAP
  - First sampling in December 2004
  - Application pending for Water Quality Standards

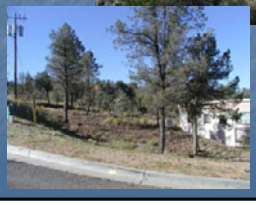
Environmental Challenges

- Non-point source pollution
  - Erosion/sedimentation
  - Contamination

Environmental Challenges

- Fire protection
  - Creating defensible space
  - Creating fire break





Slaughterhouse Gulch Overview

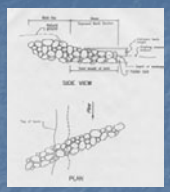
- North-eastern section of the Reservation
- Ephemeral wash
- Watershed is ~2.6 square miles

Slaughterhouse Gulch History

- Decrease non-point source pollutants, specifically sediments from entering Granite Creek through SHG
- Stabilize the banks of SHG adjacent to an existing natural gas main transfer station
- Work in partnership with the USGS to assure continued stability and effectiveness of stream gages in Granite Creek
- Restore and preserve the water quality, a significant cultural resource, on the Reservation

Slaughterhouse Gulch History

- Installed stream barbs
  - 6-12" size river rock was used
  - 8 feet deep by 16 feet long by 3 feet wide
- Installed rock at base of railroad spillway
  - 12-24" size river rock was used
  - placed in an area 15 feet by 20 feet
- Removed material from center of channel
- Hydro-seeded banks

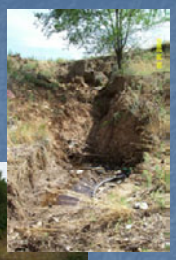


Slaughterhouse Gulch History

- Early results
  - Stream barbs directed water to center of channel
  - Scour pit at spillway
  - Slight scouring of material at banks closer to spillway with slight build up of material in center of channel
  - Slight build up of material in center of channel farther from spillway
  - Growth of native grasses

Slaughterhouse Gulch History

- Monitoring has shown:
  - Erosion and sedimentation are worsening
  - Continuing development upstream



Slaughterhouse Gulch Special Considerations

- Gas pipeline
- City of Prescott sewer lines
- Access road

Slaughterhouse Gulch Engineering Proposal

- BMP report completed January 2005 recommended:
  - Riprap
  - Gabions
  - TRM's (turf reinforcement mats)
  - Hard armor revetments (articulated concrete blocks)

Slaughterhouse Gulch Future Plans

- Tribal connector road
- 319 competitive funding

Questions?